

PATENT**D0932-0444
[I-8876]****IV. Remarks****A. Election Confirmation**

Applicants hereby confirm their election without traverse of Claims 1-16 and 36-43 for prosecution in the present application.

B. Amendments to the Specification

Paragraph 46 has been amended as set forth above to correct an obvious error therein.

C. Allowable Subject Matter

Applicants are grateful to the Examiner for recognizing the allowable subject matter in Claims 6 and 40.

The features of Claim 6 have been substantially rewritten as newly added independent Claim 44, allowance of which is requested.

D. Summary of Amendments to the Claims

Claim 1 has been amended as discussed in more detail below.

Claims 3-6, 8 and 12 have been amended consistent with amendments to Claim 1.

Claim 36 has been amended to depend from Claim 1, and Claims 41 and 43 have been amended consistent with the amendments to Claims 1 and 36. Claim 43 has also been amended to correct "cubit" to be "cubic."

E. Rejection under 35 U.S.C. §112

The Action rejects Claims 1-16 and 37-39 as being indefinite.

Claims 37-39 have been canceled, and Claim 36 has been amended to depend from Claim 1.

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The Examiner concludes that Claim 1 is indefinite, concluding that it is unclear how a reinforcing layer can be bonded between major surfaces of a fibrous mat. Applicants submit that the mat as recited would include fibrous layers on either side of the recited reinforcing layer, with the outer surfaces of the respective layers providing the major surfaces of the resulting "mat."

Notwithstanding the foregoing, Applicants have amended Claim 1 to expressly recite that the product is a "batt insulation product" comprising "first and second insulation layers coupled together to form a batt, each insulation layer containing randomly oriented fibers bonded together by a binder, each insulation layer having first and second major surfaces and a pair of side portions."

It is submitted that the amendments to Claim 1 address the Examiner's indefiniteness concerns for Claims 1-16. Reconsideration and withdrawal of the rejection of Claims 1-16 are respectfully requested.

F. Rejection under 35 U.S.C. §102

1. Shannon

The Action rejects Claims 1 and 36 as being anticipated by U.S. Patent No. 4,201,247 to Shannon.

In addition to amending Claim 1 as detailed above in the discussion of the §112 rejection, Claim 1 has been amended to recite that the batt insulation product includes the following feature: "at least one prefabricated flexible reinforcing non-woven tissue layer comprising randomly oriented glass fibers disposed between and bonded directly to said insulation layers and extending along a length of said batt, wherein the thickness of each of said insulation layers is substantially greater than the thickness of said reinforcing layer."

It is submitted that amended Claim 1 now recites several features that materially distinguish it from Shannon, namely (i) that the previously recited reinforcing layer is "at least

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one prefabricated flexible reinforcing non-woven tissue layer comprising glass fibers" disposed between and bonded directly to said insulation layers, and (ii) that the thickness of each of said insulation layers is "substantially" greater than the thickness of said reinforcing layer.

Support for these features can be found at, for example, Paragraphs 11-17, 32 and 49 of the Application as filed. For example, Paragraph 17 describes exemplary nonwoven layers, specifically the MANNIGLAS® 1800 and MANNIGLAS® 1801E white glass nonwoven tissues available from Lydall Manning Co. of Troy, NY. These glass tissues have much higher tensile strengths than do fibrous insulation layers and thus provide the desired reinforcing properties to the claimed insulation batt product. At the same time, these "tissues" are breathable and extremely thin. The thicknesses of these layers, i.e., 5.9 mils (.0059 inches) and 6.6 mils (0.0066 inches), respectively, are substantially smaller – in the range of three orders of magnitude smaller – than the thickness of typical insulation layers, e.g., between 1.0-14.0 inches (See Paragraphs 11, 12 and 43).

Turning to the disclosure of Shannon, specifically FIG. 5 cited by the Examiner, the assemblage 150 of Shannon includes alternate layers of amorphous glass fibers 151, 152, 153 with intermediate alternate layers of resin-bearing crystallizable mineral fibers 154, 155. (Column 9, Lines 39-45). As discussed below, none of these layers is a prefabricated flexible reinforcing non-woven tissue layer comprising glass fibers disposed between and bonded directly to said insulation layers and extending along a length of said batt, wherein the thickness of each of said insulation layers is substantially greater than the thickness of said reinforcing layer as as claimed.

Mineral fiber layers 154, 155 are crystallizable mineral fibers made from fusible rock, including basalt rock, slag or fibers made from mixtures of fusible rock and slag or ceramic materials such aluminum silicate (See Col. 3, Lines 44-51), and do not include "glass fibers." Further, none of the layers 151-155 are a "reinforcing non-woven tissue layer," i.e., a substantially two-dimensional non-woven reinforcing structure. Still further, none of the layers

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of the assemblage 150 has a thickness that is "substantially greater" than the thickness of the other layers.

For at least these reasons, it is submitted that Claim 1 is, therefore, not anticipated by the Shannon and is allowable thereover.

Claim 36 has been amended to depend from Claim 1 and is also not anticipated by Shannon for at least the reasons set forth above in connection with Claim 1.

Reconsideration and withdrawal of the anticipation rejection of Claims 1 and 36 are respectfully requested.

2. Pellegrin et al.

The Action rejects Claims 1-5, 7-8 and 36-37 as being anticipated by U.S. Patent No. 5,900,206 to Pellegrin et al.

In FIG. 5, Pellegrin et al. shows an insulation product 48 having glass insulation layers 22 and polymer fiber layers 55. Polymer fiber layers 55 are formed using extrusions dies 55 spaced in between glass fiber spinnerets 12. (FIG. 1; Col. 7, Lines 46-54). In this manner, the fibers that form polymer layers 55 are layered on top of the glass fiber layers 22 *in situ* as part of the process of forming the insulation layers 22.

Central polymer layer 55 is the only layer that is disposed between the two insulation layers 22. Polymer layer 55, however, (i) is not a prefabricated layer, (ii) is not a prefabricated flexible reinforcing non-woven tissue layer, and (iii) is not a non-woven tissue layer comprising glass fibers.

Further, though Applicants do not believe Pellegrin et al. discloses the relative thicknesses of the layers 22, 55 of FIG. 5, it is submitted that layers 55 are formed by accumulating significant amounts of polymer fibers on the glass fibers, particularly since fibers 55 are much longer than the glass fibers that make up layers 22, meaning many layers are

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required to provide adequate coverage in gaps between the long fibers. It is submitted, therefore, that within the product 48 of Pellgrin, the thickness of each of said insulation layers is not "substantially greater" than the thickness of said reinforcing layer as claimed.

In view of the foregoing arguments and amendments, it is submitted that Claim 1 and its dependent claims are not anticipated by Pellegrin et al. and are allowable thereover. Claims 2, 7 and 27 have been canceled. Accordingly, reconsideration and withdrawal of the anticipation rejection of Claims 1-5, 7-8 and 36-37 are respectfully requested.

G. Claim Rejection under 35 U.S.C. § 103

The Action rejects Claims 9, 11-16 and 41-42 as being obvious from Pellegrin et al as applied to Claims 1 and 36.

Claims 11, 13 and 14 have been canceled. The remaining claims depend from Independent Claim 1. It is submitted, therefore, that Claims 9, 12, 15-16 and 41-42 are allowable for at least the reasons set forth above in connection with Claim 1. Reconsideration and withdrawal of this rejection are respectfully requested.

H. New Claims

New Claims 44-50 have been added, examination of which is respectfully requested.

As noted above, Claim 44 corresponds to objected to and now canceled Claim 6 rewritten in independent form, with additional changes addressing the Examiner's definiteness concerns. Claim 44 also recites that the reinforcing layers are flexible glass tissue reinforcing layers.

Claim 45 depends from Claim 44 and recites that the insulation product is separable by hand. Support for this feature can be found at, for example, Paragraph 38 of the application as filed.

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Claim 46 depends from Claim 44 and recites that the glass tissue reinforcing layers each have a thickness between about .0059-.0066 inches. Support for this feature can be found at, for example, Paragraph 17 of the Application.

Claim 47 depends from Claim 44 and recites that the reinforcing layers are bonded to the insulation layers at least in part with said binder. Support for this feature can be found at, for example, Paragraph 38.

Claim 48 depends from claim 44 and recites that the flexible reinforcing glass tissue layers are bonded together at their interface, the bond at the interface being weaker than a bond between said flexible reinforcing glass tissue layers and said insulation layers. Support for this feature can be found at, for example, Paragraphs 38 and 41.

Claim 49 is directed to a batt insulation product having many of the same features as amended independent Claim 1 while also reciting that the insulation layers are low density glass fiber insulation layers and that the tissue layer is bonded to the insulation layers with the binder that binds the fibers of the insulation layers. Support for this feature can be found at, for example, Paragraphs 11, 12 and 38. Claim 47 also recites that the tissue layer has a tensile strength along the length of the batt that is greater than the tensile strengths of the insulation layers. This final feature is inherently disclosed by reference in the Application to, for example, the Lydall Manning MANNIGLAS® products (Paragraph 17) and the characteristics of the batt insulation layers (e.g., Paragraph 11), as well as the knowledge of those in the art.

New Claim 50 depends from Claim 47 and recites that the insulation layers are each between about 1-14" and that the thickness of the tissue layer is less than about 10 mils. Support for these features can be found at, for example, Paragraphs 10, 11, 17 and 43.

New Claim 51 depends from Claim 1 and recites that the at least one reinforcing layer is bonded to the insulation layers at least in part with said binder. Support for this feature can be found at, for example, Paragraph 38.

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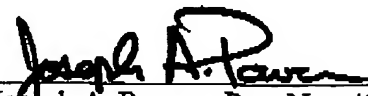
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V. Conclusion

In view of the foregoing remarks and amendments, Applicants submit that this application is in condition for allowance at an early date, which action is earnestly solicited.

The Commissioner for Patents is hereby authorized to charge any additional fees or credit any excess payment that may be associated with this communication to deposit account 04-1679.

Respectfully submitted,

Dated: 4/26/06
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